

Fig. 1

002739855 4348200

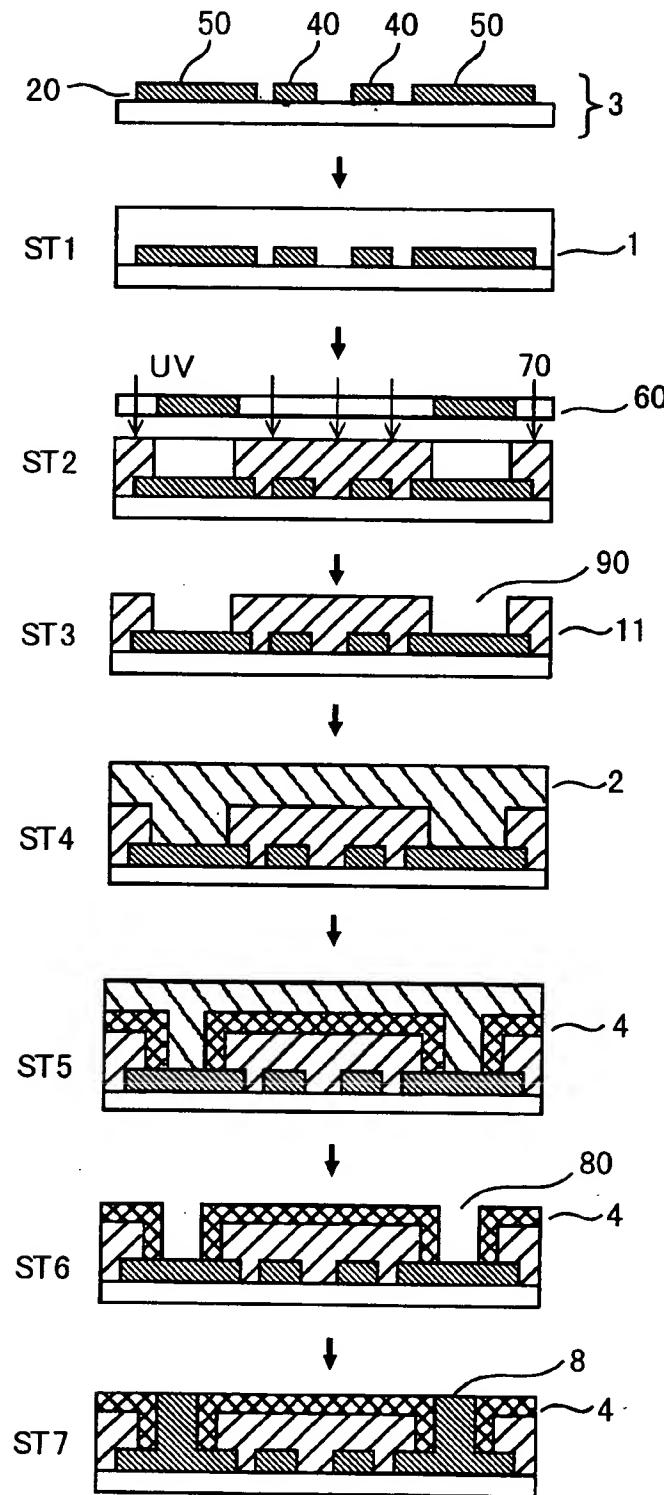


Fig.2

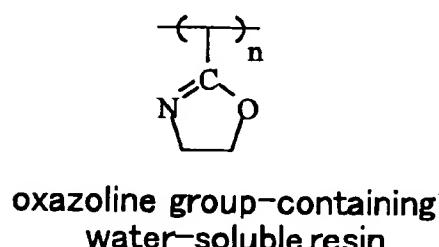
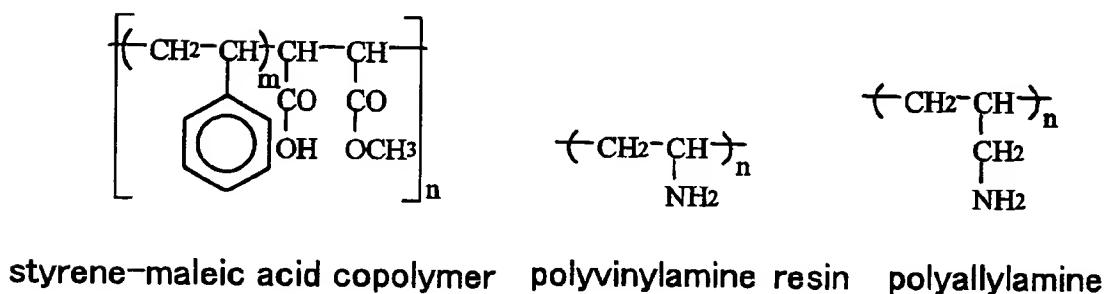
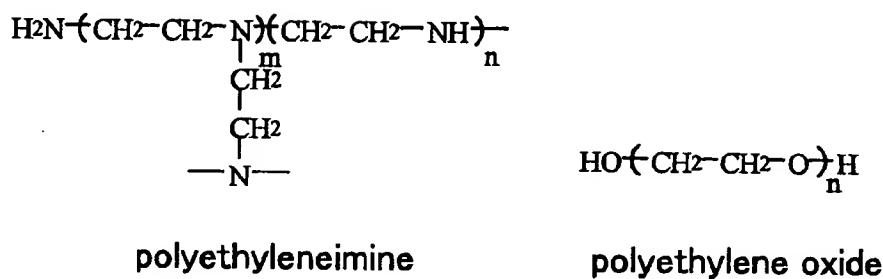
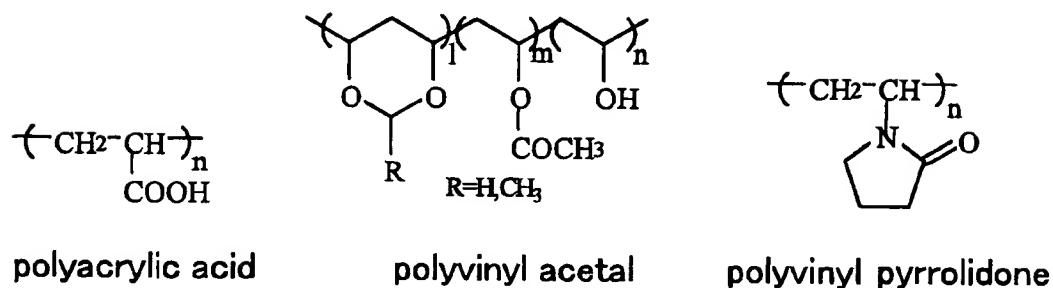
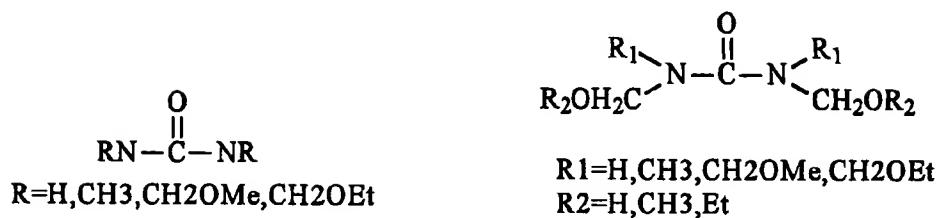
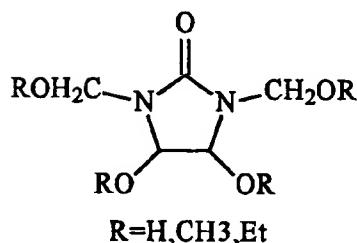


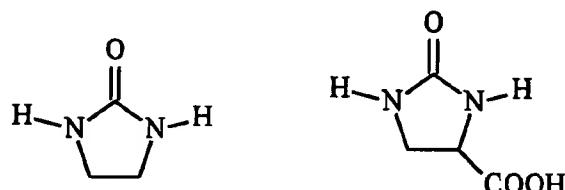
Fig.3



ureaderivatives



alkoxymethylurea



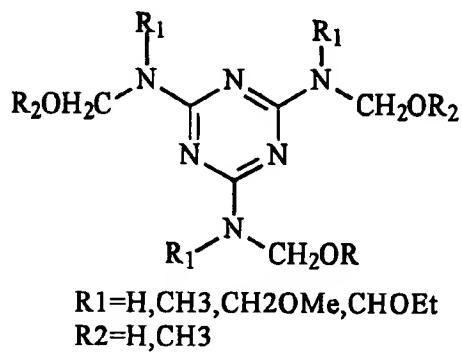
N-alkoxyethyleneurea



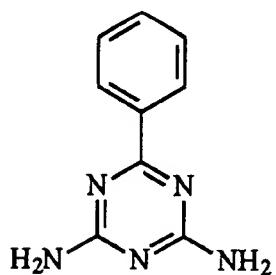
ethyleneureacarboxylic acid

$$\begin{array}{c}
 \text{NR} \\
 | \\
 \text{N}=\text{C} \\
 | \\
 \text{RN} \quad \text{N}=\text{C} \quad \text{NR}
 \end{array}$$

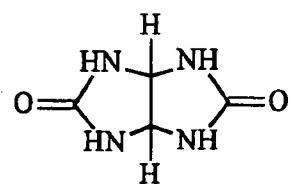
melamine derivatives



alkoxymethylmelamine derivatives



benzoguanamine



glycoluril

Fig.4

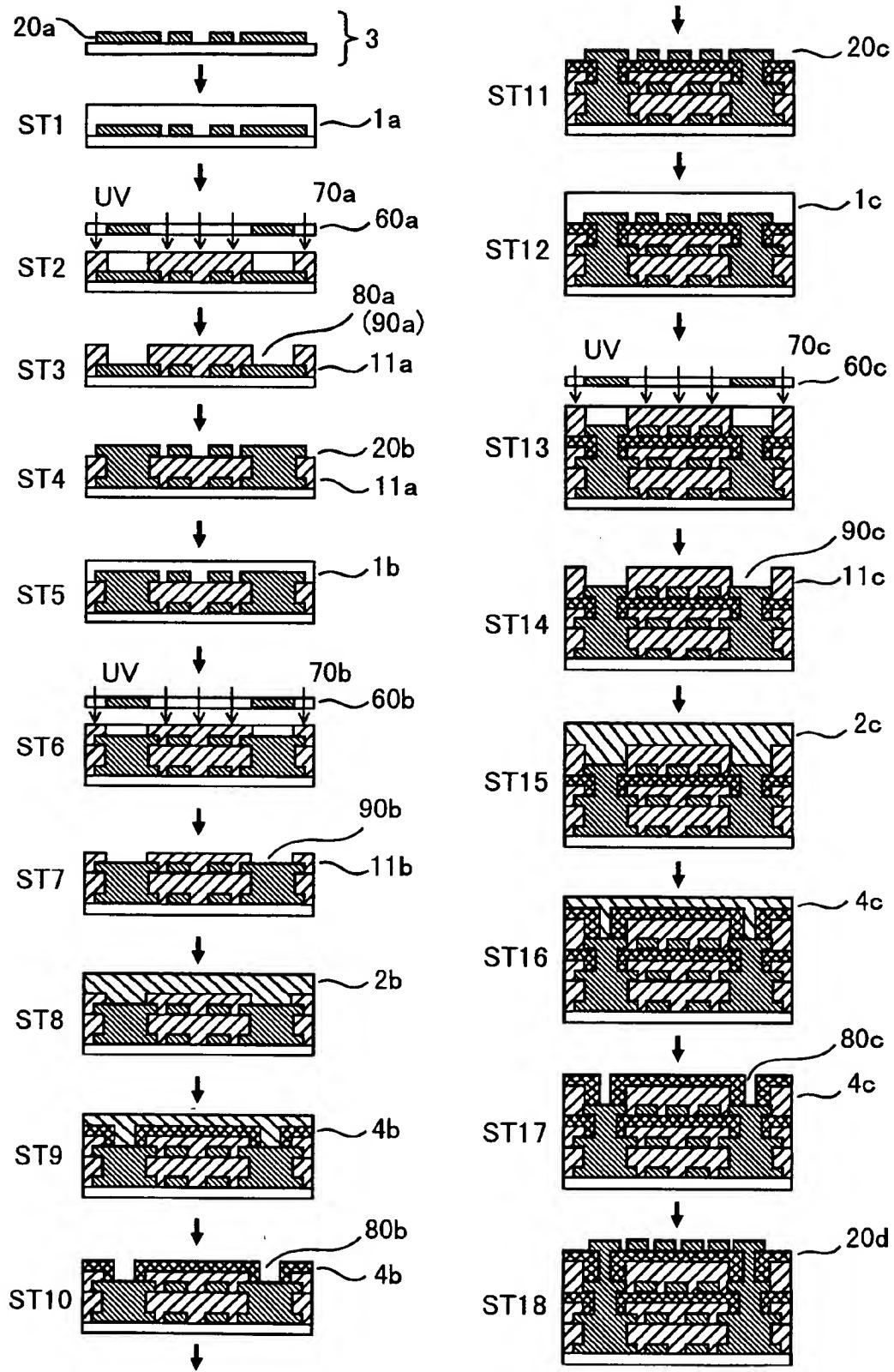


Fig.5

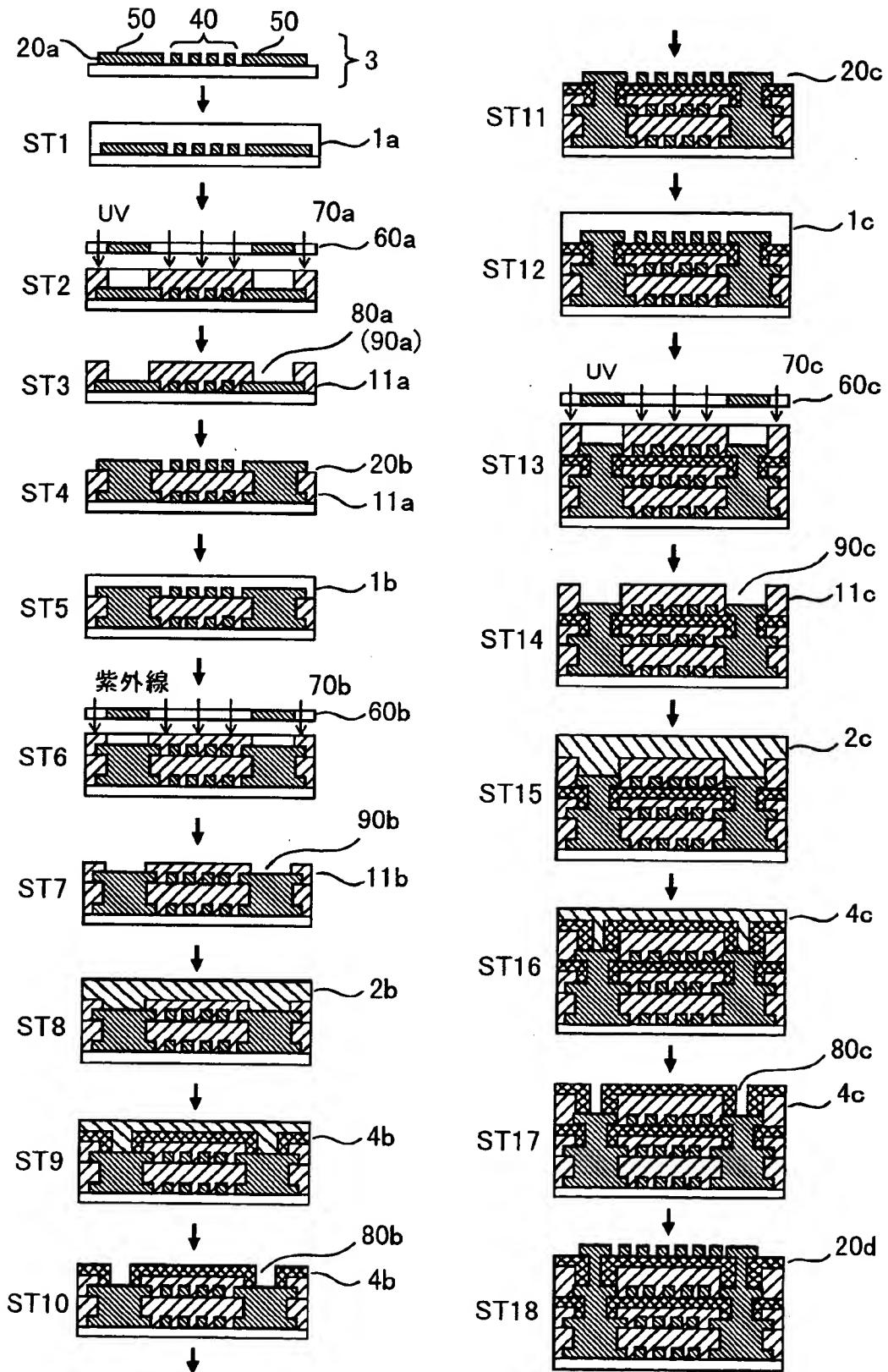


Fig.6

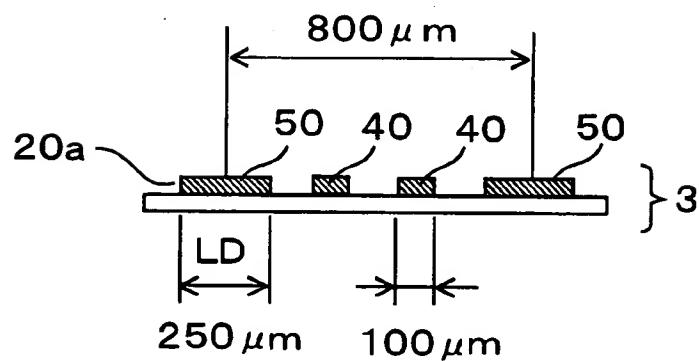


Fig.7

Evaluation Board A

Evaluation Board B

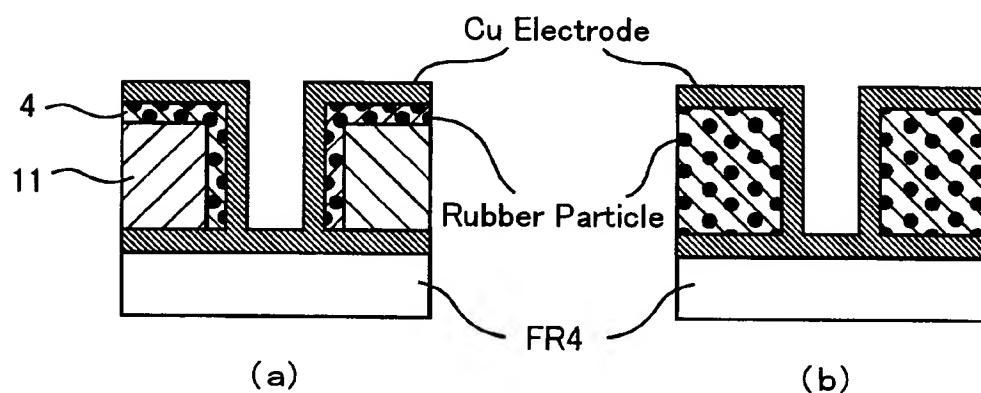


Fig.8
PRIOR ART

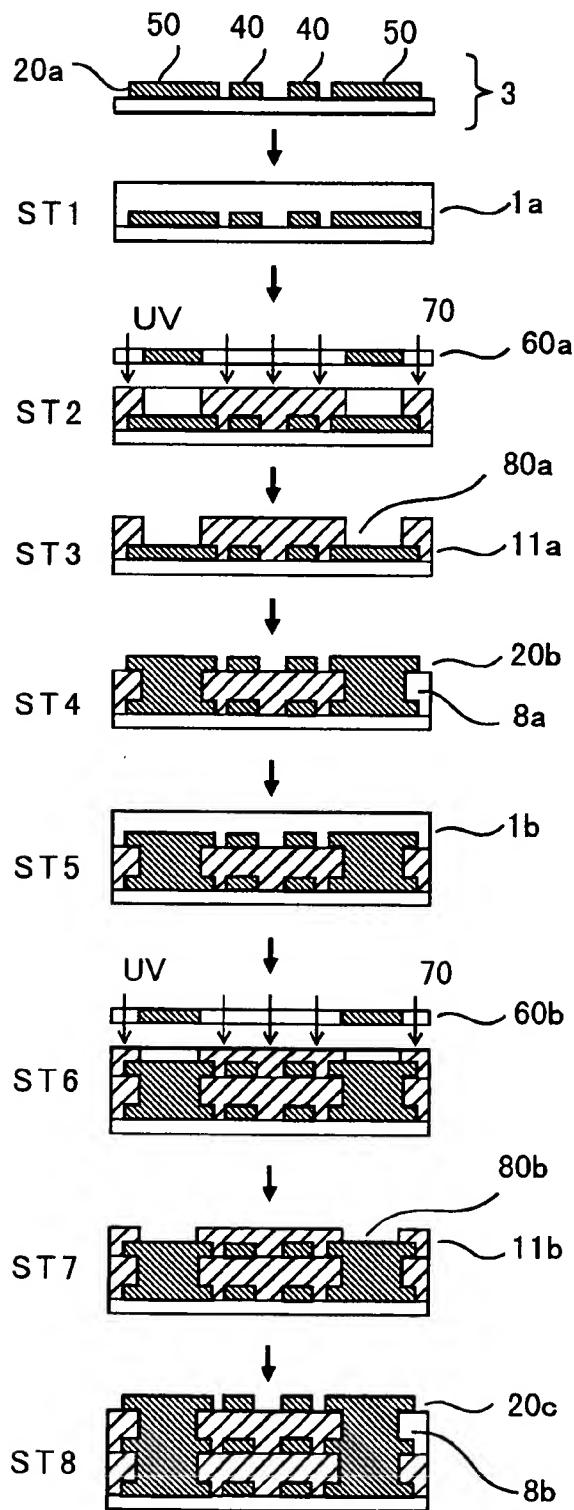


Table 1

Condition	Diameter of Via-Hole
Non Heat Treatment	150 μ m
120°C/60min	130 μ m
130°C/30min	100 μ m
140°C/30min	70 μ m

Table 2

Condition	Diameter of Via-Hole
Non Heat Treatment	150 μ m
110°C/10min	120 μ m
110°C/20min	100 μ m
110°C/30min	80 μ m
135°C/40min	40 μ m

Table 3

Condition	Diameter of Via-Hole
Non Heat Treatment	150 μ m
110°C/15min	120 μ m
120°C/15min	100 μ m
130°C/15min	80 μ m
135°C/20min	45 μ m

Table 4

Condition	Diameter of Via-Hole
Non Heat Treatment	100 μ m
120°C/30min	96 μ m
130°C/30min	90 μ m
140°C/30min	83 μ m

Table 5

Sample	Dielectric Constant [1kHz] 25°C	Thermal Expansion [Vertical] 80~120°C	Peel Strength [90° Peel] 25°C
Evaluation Board A	4.5	40ppm	980kg/cm
Evaluation Board B	4.8	55ppm	970kg/cm